

What is claimed is:

1. A computer-based method for viewing a data dictionary structure, the method comprising:

retrieving a data dictionary including terms and term definitions;
5 determining all lexical nodes of the data dictionary based on the terms;
parsing each term's definition;
determining dependencies of each lexical node based on the parsed definitions
and the terms associated with other lexical nodes;
10 generating a lexical graph based on the determined lexical nodes and the
determined dependencies; and
displaying at least a portion of the generated lexical graph.

2. The method of Claim 1, wherein the determined dependencies comprise at least one
of a valid type dependency, a caution type dependency, or a cyclical type dependency.

3. The method of Claim 2, wherein generating a lexical graph comprises generating
15 node icons based on the dependency type.

4. The method of Claim 1, further comprising determining a lexical stability value for
each lexical node.

5. The method of Claim 4, further comprising displaying the determined lexical
stability value with the associated lexical node in the lexical graph.

20 6. The method of Claim 4, wherein determining the lexical stability value comprises
dividing the number of nodes that lexically depend on a current node by the number of nodes
that lexically depend on the current node plus the number of nodes that the current node
lexically depends from.

25 7. The method of Claim 4, further comprising determining an aggregate stability value
for each node.

8. The method of Claim 7, further comprising displaying the aggregate stability value
for each lexical node.

30 9. The method of Claim 7, wherein determining the aggregate stability value of a
current node comprises adding the lexical stability values of all nodes that are lexically
dependent upon the current node to the current node's lexical stability value.

10. The method of Claim 7, further comprising:
determining a global stability value by summing the lexical stability values of all
nodes of the generated lexical graph; and
determining a fractional stability value for each node based on the determined
aggregate and global stability values.

11. The method of Claim 10, further comprising displaying the determined fractional
stability value for each lexical node.

12. The method of Claim 10, wherein determining the fractional stability for a current
node comprises dividing the current node's aggregate stability value by the global stability
value.

13. The method of Claim 1, further comprising:
modifying at least one definition associated with the terms of one or more lexical
nodes;
parsing the at least one modified definition;
redetermining dependencies of each lexical node based on the previous parsed
definitions, the parsed modified definition, and the terms associated with the
other lexical nodes; and
regenerating the lexical graph based on the redetermined dependencies.

14. The method of Claim 1, further comprising:
adding a lexical node by inserting a term and term definition;
parsing the term definition of the added lexical node;
redetermining dependencies based on the previous parsed definitions, the parsed
definition of the added lexical node, and the terms associated with the other
lexical nodes; and
regenerating the lexical graph based on the redetermined dependencies.

15. A computer system for viewing a data dictionary structure, the system comprising:
a processor comprising:
a first component configured to retrieve a data dictionary including terms and
term definitions;
a second component configured to determine all lexical nodes of the data
dictionary based on the terms;
a third component configured to parse each term's definition;

a fourth component configured to determine dependencies of each lexical node based on the parsed definitions and the terms associated with the other lexical nodes; and
a fifth component configured to generate a lexical graph based on the determined lexical nodes and the determined dependencies; and
a display coupled to the processor and configured to display at least a portion of the generated lexical graph.

16. The system of Claim 15, wherein the determined dependencies comprise at least one of a valid type dependency, a caution type dependency, or a cyclical type dependency.

17. The system of Claim 16, wherein the fifth component is further configured to generate node icons based on the dependency type.

18. The system of Claim 15, wherein the processor further comprises a sixth component configured to determine a lexical stability value for each lexical node.

19. The system of Claim 18, wherein the display is further configured to display the determined lexical stability value with the associated lexical node in the lexical graph.

20. The system of Claim 18, wherein the sixth component determines the lexical stability value by dividing the number of nodes that lexically depend on a current node by the number of nodes that lexically depend on the current node plus the number of nodes that the current node lexically depends from.

21. The system of Claim 18, wherein the processor further comprises a seventh component configured to determine an aggregate stability value for each node.

22. The system of Claim 21, wherein the display is further configured to display the aggregate stability value for each lexical node.

23. The system of Claim 21, wherein the seventh component determines the aggregate stability value by adding the lexical stability values of all nodes that are lexically dependent upon the current node to the current node's lexical stability value.

24. The system of Claim 21, further comprising:
an eighth component configured to determine a global stability value by summing the lexical stability values of all nodes of the generated lexical graph; and

a ninth component configured to determine a fractional stability value for each node based on the determined aggregate and global stability values.

25. The system of Claim 24, wherein the display is further configured to display the determined fractional stability value for each lexical node.

5 26. The system of Claim 24, wherein the ninth component determines the fractional stability value by dividing the current node's aggregate stability value by the global stability value.

27. The system of Claim 15, further comprising:

10 a modifying component configured to modify at least one definition associated with the terms of one or more lexical nodes;

wherein the third component parses the at least one modified definition, the fourth component redetermines dependencies of each lexical node based on the previous parsed definitions, the parsed modified definition, and the terms associated with the other lexical nodes, and the fifth component regenerates the lexical graph based on the redetermined dependencies.

15 28. The system of Claim 15, further comprising:

a modifying component configured to add a lexical node by inserting a term and term definition;

20 wherein the third component parses the term definition of the added lexical node, the fourth component redetermines dependencies of each lexical node based on the previous parsed definitions, the parsed definition of the added lexical node, and the terms associated with the other lexical nodes, and the fifth component regenerates the lexical graph based on the redetermined dependencies.